



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Robert L. Morgan
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 telephone

(801) 359-3940 fax

(801) 538-7223 TTY

www.nr.utah.gov

September 25, 2003

Ms. Karen Palmer
Diamond K Gypsum
1600 South Red Hills Drive
Richfield, Utah 84701

Subject: Map Approval and Revegetation Recommendations, Diamond K Gypsum, DKG
Quarry, M/015/041, Emery County, Utah

Dear Ms. Palmer:

First, I would like to thank you, Clint Henry, and Chris Allred for taking the time to talk to the Board of Oil, Gas and Mining. The Board members have seen several different types of mining operations, but most have never been to a gypsum mine. It was also interesting to contrast the type of mining you are able to do with a mine being operated primarily for wallboard gypsum. I received several comments about how they enjoyed the tour.

One of the purposes for the inspection I did in August was to verify the map you sent us on July 15, 2003. Submission of this map was one of the conditions on approval of the amendment for adding the new area. The Division hereby approves the map for inclusion in your mine plan. A copy is enclosed for you to update your copy of the plan.

The other condition was that, this fall, you reseed the portions of Area B where there is inadequate vegetation. It is vital that, before seeding, the surface be properly prepared. I suggest two alternatives, and you may want to try one in part of the area and the other in the remainder.

1. Gouge. Those areas where grasses have become well established should be left alone, but I suggest that you gouge at least part of the area. Gouging is a roughening technique where a trackhoe or similar equipment is used to create numerous depressions about one foot deep and about two or three feet in diameter. The end result is an area that looks something like a ski slope covered with moguls. I have enclosed photographs showing portions of the Star Point coal mine that were gouged.
2. Rip then spread coarse gypsum. In this case, the purpose of ripping would be to break the surface crust and to roughen the surface rather than to decrease compaction. After ripping, a thin layer of coarse, waste gypsum could be applied

Karen Palmer
Page 2 of 2
M/015/041
September 25, 2003

to the surface. I believe that the coarse gypsum on the surface of the plots at the Eagle Canyon Mine may have increased water infiltration, but it may have had the additional effect of increasing soil aggregation. This, of course, is one of the purposes for which farmers buy your product.

I recommend using the following seed mixture:

<u>Species</u>	<u>Pounds Pure Live Seed/Acre</u>
Russian Wild Rye	4
Fourwing Saltbush	2
Indian Ricegrass	3
Castle Valley Clover	3
Shadscale	2

The seed mix would be broadcast seeded very soon after the roughening and gypsum treatments were complete, hopefully the same day but definitely before any precipitation.

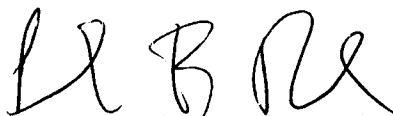
Castle Valley clover will probably be the most expensive species in this mixture and the most difficult to obtain, but it tends to do very well on reclaimed sites.

I believe that using these revegetation methods will maximize the probability of revegetation success.

I sent an electronic mail message to Dean Nyffeler of the Price BLM office and included these revegetation recommendations. While the BLM had had concerns with using Russian wild rye because it is an introduced species, he did not object to use of this species.

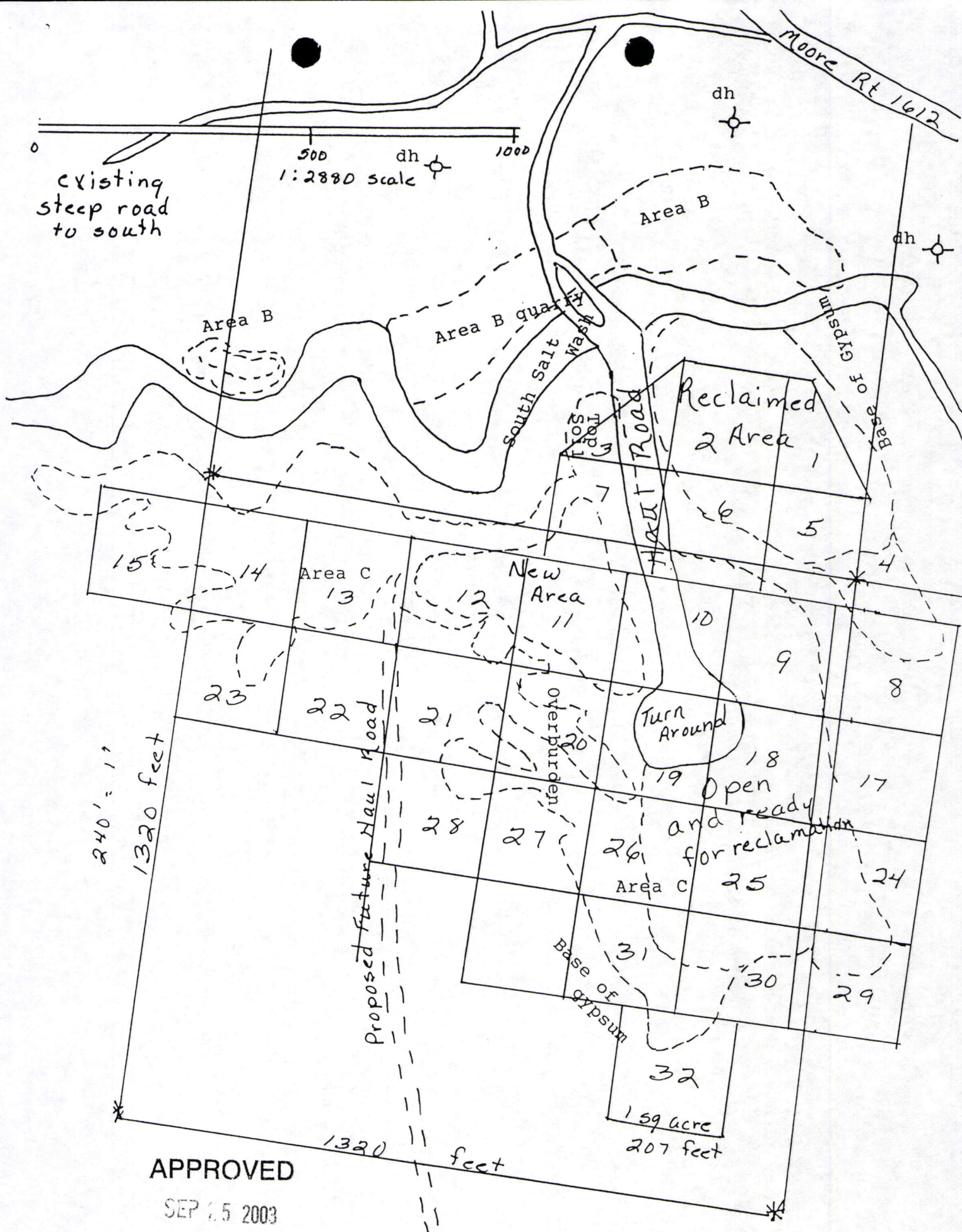
You have been very cooperative in completing permitting actions and following your approved plan for which I am grateful. Please call me at 801-538-5261 if you have questions about the recommendations in this letter

Sincerely,



Paul B. Baker, Senior Reclamation Biologist
Division of Oil, Gas and Mining

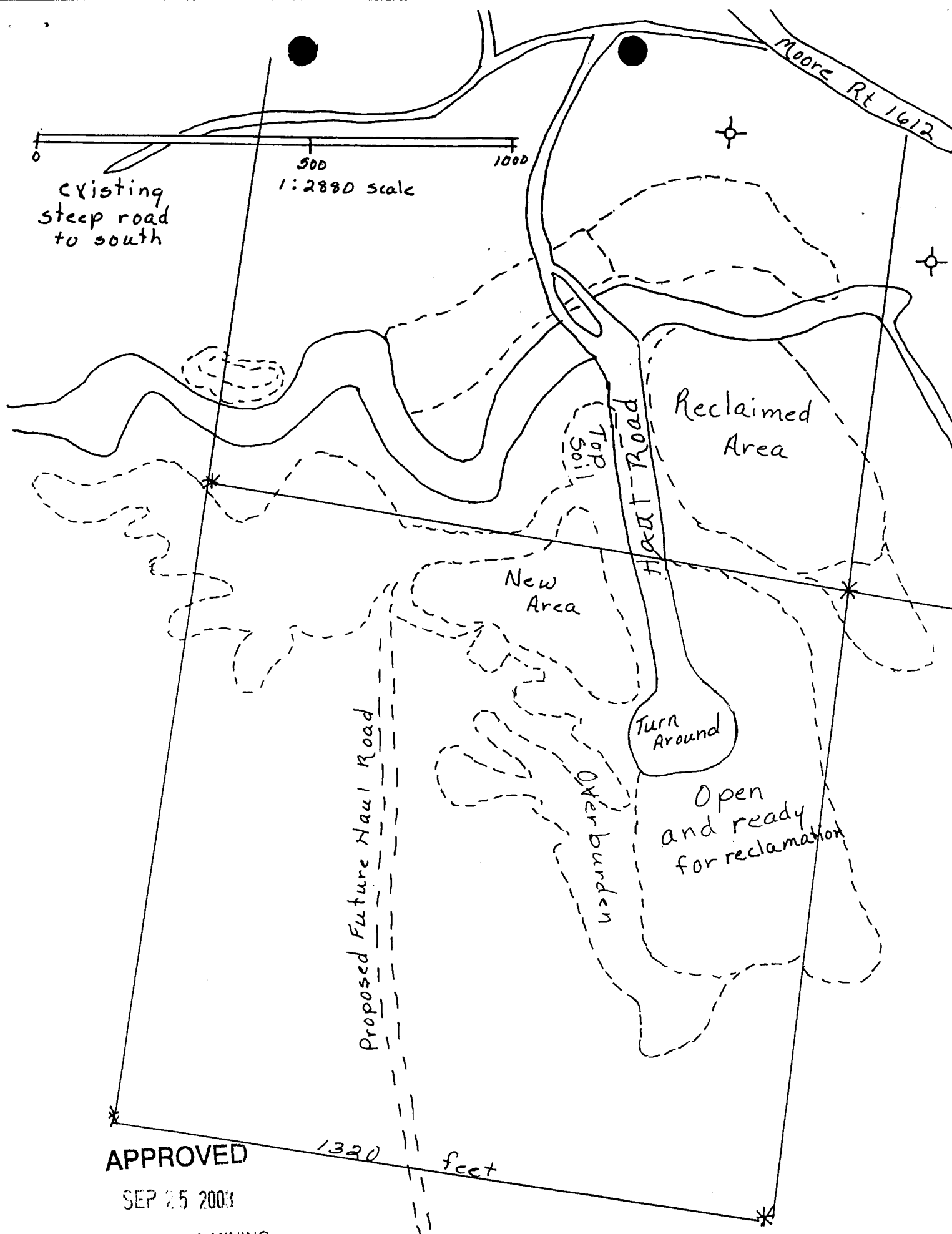
PBB:jb
Enclosure: Inspection Report, Photos (Star Point),
Maps from Permit Amendment
cc: Dean Nyffeler, Price BLM w/enclosures
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Photographs of Extreme Roughening at the Star Point Mine, C/007/006

